

AMENDMENT AND RESPONSE TO OFFICE ACTION

Amendment

In the Claims

1-27. (cancelled)

28. (currently amended) A method of treating hematological malignancies in a subject in need thereof, the method comprising orally administering to the subject a therapeutically effective amount of an arsenic trioxide composition containing at least 90% pure arsenic trioxide to produce a lower peak plasma concentration with less cardiotoxicity in the form of cardiae arrhythmias prolongation of the QT interval and ventricular tachycardia than than observed when the same amount of arsenic trioxide is administered intravenously.

29. (previously presented) The method of claim 28, wherein the arsenic trioxide is a powder.

30. (currently amended) The method of claim 29, wherein the arsenic trioxide powder has at least 90%, 95%, 96%, 97%, 98% or 99% purity.

31. (previously presented) The method of claim 28, wherein the arsenic trioxide is incompletely dissolved or dispersed in a solution.

32. (previously presented) The method of claim 28, wherein the arsenic trioxide is administered in a dosage of 5 to 10 mg/day.

33. (previously presented) The method of claim 28, wherein the arsenic trioxide is in a solution having a pH of 8.0.

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34. (previously presented) The method of claim 28, wherein the arsenic trioxide is in a solution having a pH of 7.2.

Claims 35-37. (cancelled)

38. (previously presented) The method of claim 28, wherein the arsenic trioxide composition is orally administered to the subject daily at intervals for periods of weeks, a month or longer.

39. (previously presented) The method of claim 28, wherein the therapeutically effective amount is 10 mg per day.

40. (original) The method of claim 28, wherein the hematological malignancies is selected from the group consisting of acute myeloid leukemia, acute nonlymphocytic leukemia, myeloblastic leukemia, promyelocytic leukemia, myelomonocytic leukemia, monocytic leukemia, erythroleukemia, myelodysplastic syndrome, acute promyelocytic leukemia, chronic lymphocytic leukemia, chronic myeloid leukemia, hairy cell leukemia, polycythemia vera, Hodgkin's lymphoma, non-Hodgkin's lymphomas, myeloma, giant cell myeloma, indolent myeloma, localized myeloma, multiple myeloma, plasma cell myeloma, sclerosing myeloma, solitary myeloma, smoldering multiple myeloma, nonsecretory myeloma, osteosclerotic myeloma, plasma cell leukemia, solitary plasmacytoma, and extramedullary plasmacytoma.

41. (original) The method of claim 28, wherein the hematological malignancies is acute myeloid leukemia.

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42. (original) The method of claim 28, wherein the hematological malignancies is acute promyelocytic leukemia.

43. (previously presented) The method of claim 28 further comprising administering one or more additional chemotherapeutic agents.

44. (cancelled)

45. (previously presented) The method of claim 28 wherein the arsenic trioxide composition is a tablet, capsule, dispersion or suspension.